



# Product Evaluation

RC426 | 0115

Engineering Services Program

*The following product has been evaluated for compliance with the wind loads specified in the International Residential Code (IRC) and the International Building Code (IBC).*

*This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.*

*This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.*

*For more information, contact TDI Engineering Services Program at (800) 248-6032.*

**Evaluation ID:** RC-426

**Effective Date:** January 1, 2015

**Re-evaluation Date:** January 2019

**Product Name:** NS 100 Minimum 24-Gauge Metal Roofing Panels Installed Over a Plywood Deck

**Manufacturer:** River City Roofing & Remodeling, Inc.  
602 Everest Street  
San Antonio, TX 78209  
(210) 828-2739

## General Description:

The NS 100 metal roofing panel is minimum 24-gauge galvalume steel with an optional paint finish. The metal panels have a maximum coverage of 16". The metal roofing panels have a 1" tall snap lock with a nail fastener flange. The metal roof panels conform to ASTM A792 AZ55 with a minimum yield strength of 50,000 psi. Panels must be formed within the panel rollformer specifications and tolerances.

**Panel Rollformer:** Schleichbach Quadro-Plus Rollformer  
Metalforming, Inc.  
100 International Drive  
Peachtree City, GA 30269

## Limitations:

- **Roof Deck:** Install the metal roofing panels over a minimum 15/32" plywood deck.
- **New Roof Deck Attachment:** The roof deck must meet or exceed the uplift requirements of the IRC or IBC. Install as required for resistance to wind loads.
- **Design Wind Pressures:** Table 1 specifies the design pressure uplift load resistance.
- **Roof Slope:** Do not install the panels on roofs with a roof slope less than 3:12.

**Limitations (continued):**

- **Installation Over an Existing Roof Covering:** Installation over an existing roof covering is limited to a maximum of one existing layer of composition shingles, wood shingles or shakes, built-up roofing, or roll roofing applied over an existing, solid roof deck of minimum 15/32" plywood. Note: Inspect the existing roof deck prior to the installation of the roof panels. The existing roof deck must be in acceptable condition before installing the metal roofing panels. Installation does not require underlayment.

**Table 1:** Attachment of Minimum 24-gauge NS 100 Metal Roofing Panels to Minimum 15/32" Plywood

Design Wind Pressure (psf)	Fastener Pattern	Fasteners Into Roof Deck Through Nailstrip	Fastener Spacing	Fasteners Into Roof Deck Through Pan	Fastener Spacing
-59.8	Type 1	One (1), No. 10-13x1" Type A	16" on center	N/A	N/A
-101.0	Type 1	One (1), No. 10-13x1" Type A	6-3/4" on center	N/A	N/A
-153.5	Type 2	One (1), No. 10-13x1" Type A	6-3/4" on center	Two (2), No. 10-11x1" Eclipse Head	12" on center

**Installation Instructions:**

- **General:** Install the metal roofing panels in accordance with the manufacturer's recommended installation instructions and this evaluation report.
- **Panels:** Attach panels in accordance with the installation details in Table 1 and the fastener patterns shown in Figure 1.
- **Underlayment:** Use a minimum of one layer of minimum 40 mil self-adhering underlayment. The underlayment used must be an ICC-ESR listed underlayment and be considered an acceptable alternative to the underlayment specified in the IRC and the IBC. Apply the underlayment in accordance with the manufacturer's installation instructions and the IRC or IBC.
- **Attachment of Metal Roofing Panels to the Roof Deck:** Secure the metal roofing panels to the wood roof deck using minimum No. 10-13 x 1" long Pancake Type A screws and minimum No 10-11 x 1" long Pancake Type A screws in accordance with Table 1 and Figure 1.. Use fasteners long enough to penetrate a minimum of 1/4" below the roof deck. Note: If installing the metal roofing panels over an existing roof covering, then increase the fastener length so that the fasteners penetrate a minimum of 1/4" below the roof deck. Table 1 and Figure 1 specify the spacing of the fasteners.
- **Panel Ends and Edges:** As required by the manufacturer.
- **Trims, Closures, and Accessories:** Install components, such as the eave trim, rake trim, ridge trim, hip trim, and valley trim, as required by the manufacturer.

**Note:** Keep the manufacturer's installation instructions at the job site during installation. Use corrosion resistant fasteners as specified in the IRC, IBC, and the Texas Revisions.

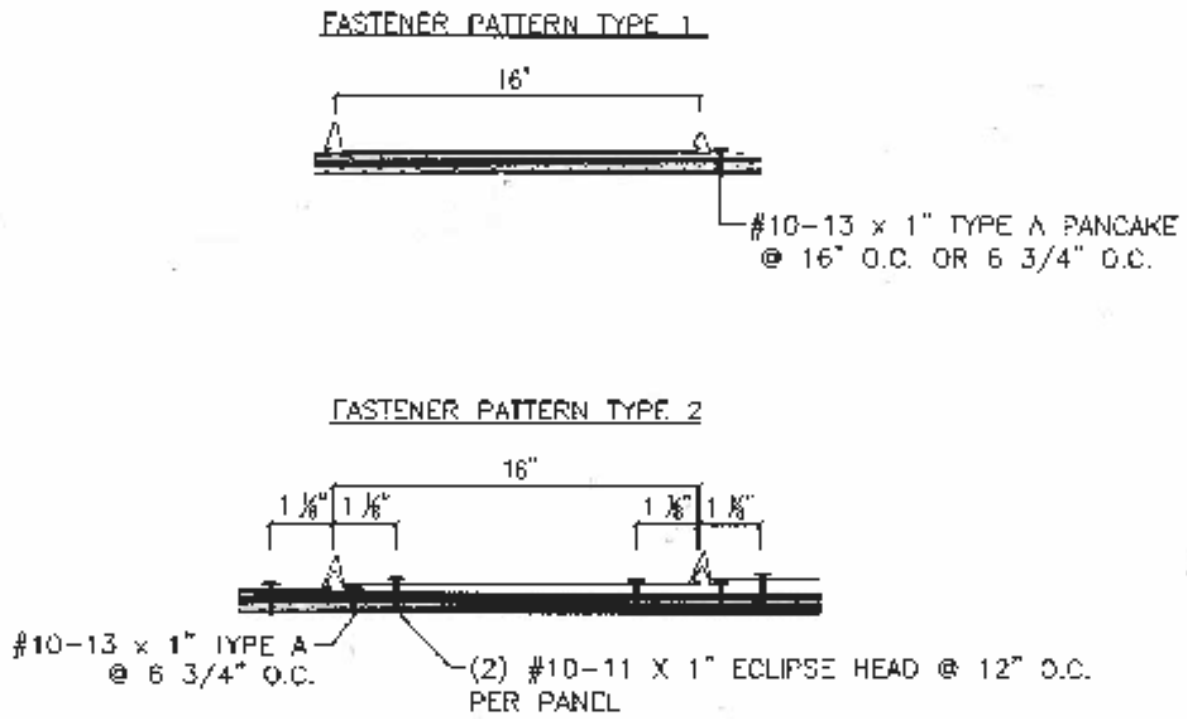


Figure 1. Fastener Patterns